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D.C.

No 53

An Essay
on the

good -

Acute stage of Hepatitis.
Submitted to the medical Faculty

of the
University of Pennsylvania

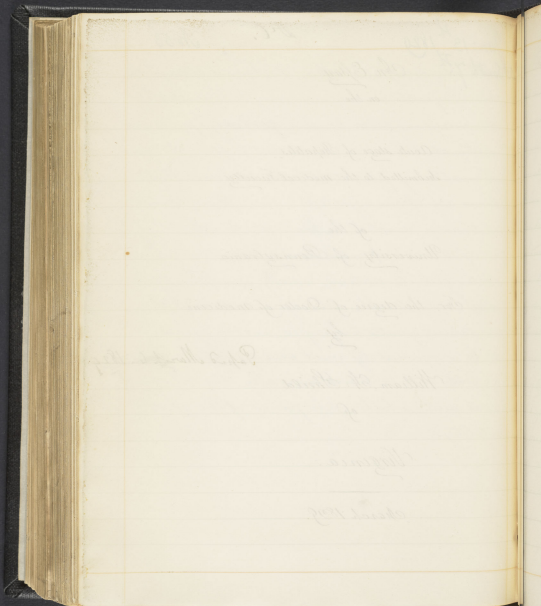
For the degree of Doctor of medicine
by

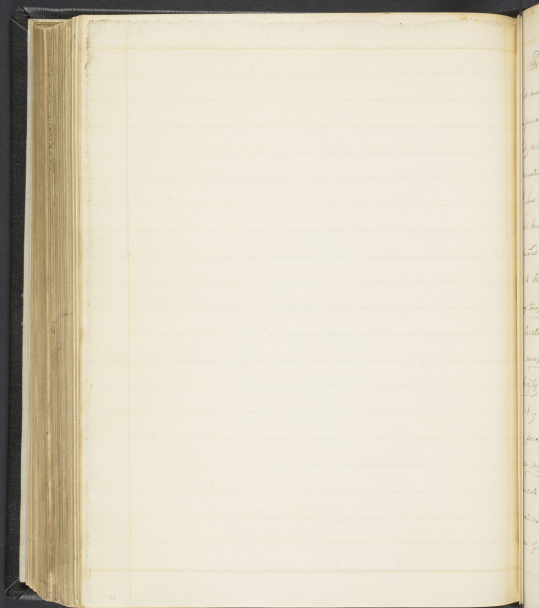
William H. Shield
of

Passed March 6. 1829

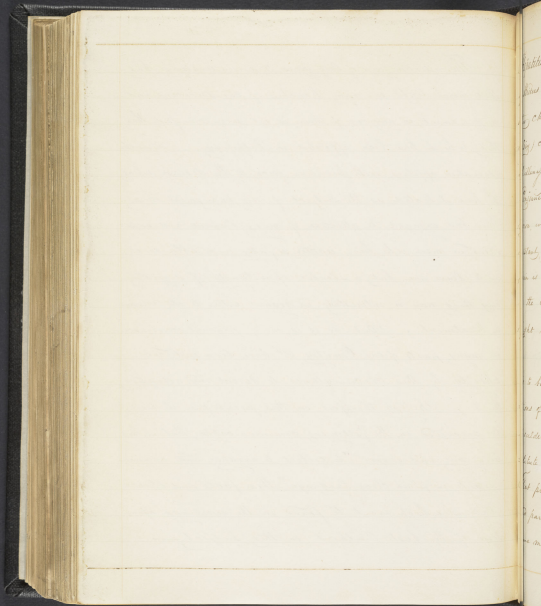
Virginia.

March 1829.





The attention paid of late years to medical anatomy, has shed much light on many branches of our science — and improvement in any one of them, is not more manifest than that, which has been effected in Pathology. This observation applies with peculiar force to the disease which I have selected as the subject of my Inaugural Thesis. This has engaged the attention of many learned and experienced men who have written so fully and ably on it, as to leave me but a slender opportunity of suggesting any thing new or interesting in regard either to its causes or treatment. But as it is one of frequent occurrence in many parts of our Country, I have been induced chiefly by this circumstance to direct my attention to it. Acting therefore on this principle, it will be perceived in the following communication that it has been my endeavour, "to collect to arrange and communicate in plain clear language" those facts and observations which are to be found in the writings of some of the best Authors on this subject —

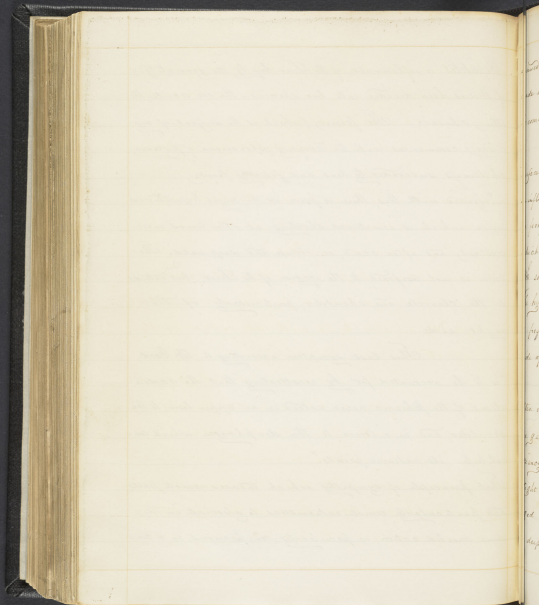


Hepatitis a inflammation of the Liver has by the generalists of Medicine been divided into two species - the one acute, the other chronic. The former (which is the subject of my Essay) commences with the ordinary phenomena of pyrexia, chilliness, succeeded by heat, and finally fever.

Conjoined with this, there is pain in the right hypochondriac region, which is sometimes shooting, at other times more constant, and often acute, or obtuse and deep-seated. The pain is not confined to the region of the Liver, but extends to the clavicle and shoulder, particularly of the right side.

This last symptom according to Dr. Good, "is to be accounted for by recollecting that the radicle-ations of the phrenic nerve extend in an upper line, to the shoulder, and in a lower, to the diaphragm which communicates its extreme points."

That principle of sympathy which induces remote parts, and particularly remote extremities to associate in the same morbid action, is peculiarly conspicuous in a con-

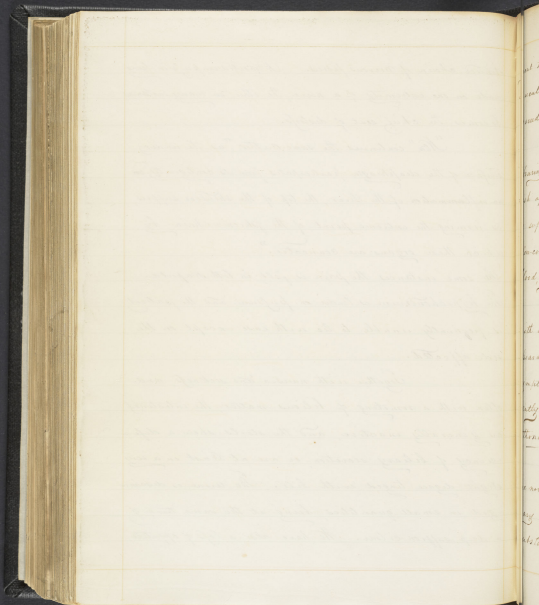


stretched chain of nervous fibres. A morbid impression being made on one extremity of a nerve, the other in many instances becomes the chief seat of distress.

"N^o" continues the same author "as the under surface of the diaphragm participates from its contiguity, in an inflammation of the Liver, the top of the shoulder suffers, as forming the extreme point of the phrenic chain by which these organs are connected."

On some instances, the pain is felt in both scapulae. The hypochondrium is tender on pressure, and the patient is frequently unable to lie with ease except on the side affected.

Together with nausea &c sickness, and often with a vomiting of bilious matter, the intestines are generally inactive, and the stools shew a deficiency of biliary secretion, or are at least in a very slight degree tinged with bile. The urine is discharged in small quantities, being at the same time of a deep saffron colour. We have also a loss of appetite,



great thirst and costiveness, with a strong, hard, and frequent pulse. The skin is hot and dry, and the tongue covered with a white - sometimes a yellowish fur.

The blood drawn from a patient labouring under this disease, is said to exhibit a greenish appearance just before it coagulates in which is supposed to be "owing to the mixture of the yellow-coloured bile, with the purple-coloured venous blood, yellow and purple forming green."

Hepatitis is sometimes accompanied with a jaundiced colour of the skin, and this appearance has been ranked among the diagnostic symptoms of the disease; but it is not sufficiently frequent to be enumerated among the pathognomonic characters.

The symptoms in Hepatitis are not always of the same degree of violence, but vary according as the membrane of the Liver, or its substance may be affected. When the former is the

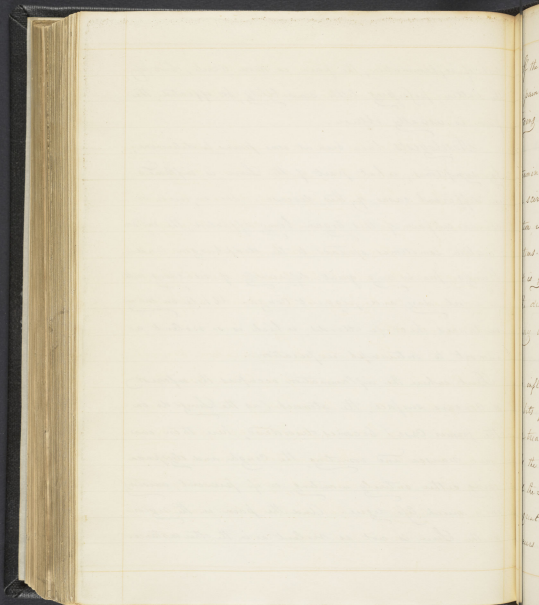
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seat of inflammation, the pain is more acute, but if the latter, possessing little sensibility, be affected, the pain is usually obtuse.

Physiologists have been at some pains to determine, by symptoms, what part of the Liver is inflamed in different cases of this disease. The superior or convex surface of this organ being affected, the inflammation sometimes spreads to the diaphragm and Lungs, producing great difficulty of breathing, with a short dry and frequent Cough. While in many instances hiccough attends, which is so violent as almost to interrupt respiration.

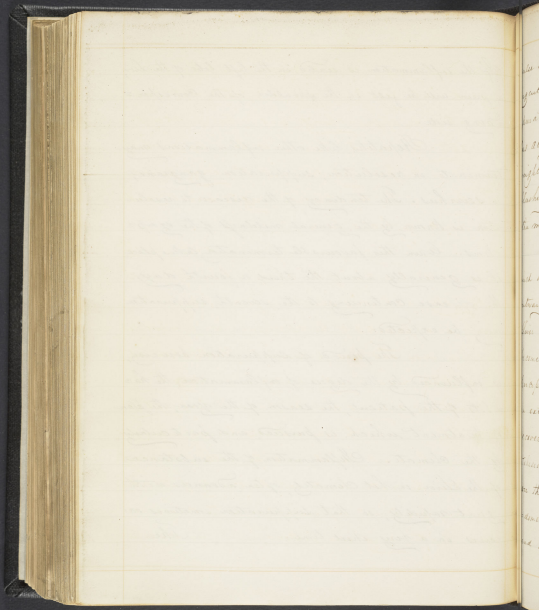
But when the inflammation occupies the inferior or concave surface, the stomach (as the Lungs do in the former case) becomes disordered; here then we have nausea and vomiting, the Cough and dyspnea being either entirely wanting, or if present, existing in a much less degree. And the pain in the region of the Liver is not so violent as in the other instance.



If the inflammation is seated in the left lobe of the Liver,
a pain will be felt in the Shoulder of the Corresponding
side.

Hepatitis like other inflammations may
terminate in resolution, suppuration, gangrene,
or scirrhus. The tendency of the disease to resolution,
is known by the general mildness of the symptoms.
When this favourable termination takes place,
it is generally about the third or fourth day;
the disease continuing to the seventh, suppuration
may be expected.

The period of suppuration however,
is influenced by the degree of inflammation, the habits
of the patient, the season of the year, the plan
of treatment which is pursued, and particularly
by the climate. Inflammation of the substance
of the Liver in hot climates, often advances with
great rapidity, so that suppuration sometimes occurs
in a very short time. The



pulse continuing full and frequent, and the pain
urgent, with rigors, it may be expected that sup-
=puration is approaching, and when an abscess
has actually formed, there will be a sense of
weight in the part, together with throbbing pains,
flushings of the countenance, night sweats, and
other marks of hectic fever.

The danger from suppuration depends very
much on the location of the abscess. When it points
outwardly, adhesions sometimes form, between the
Liver and parietes of the abdomen. The tumour here
becomes more and more permanent, fluctuation is
perceptible, and finally matter is discharged by
an external opening, and the patient frequently
recovers.

In some instances however, when such
adhesions have not formed, and the walls of the abscess
are thin, the matter bursts into the cavity of the ab-
=domen, peritoneal inflammation is the consequence,
and death very soon follows. The abscess

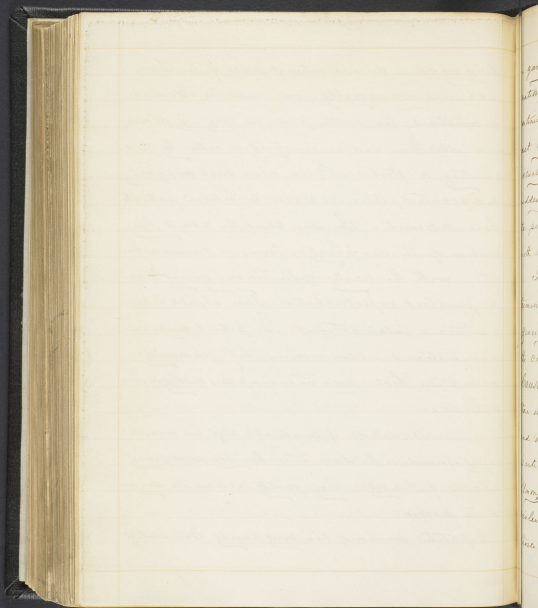
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being seated in the more internal parts of the Liver, adhesions occasionally form with the stomach or intestines, the matter finds its way by ulceration into them, and is discharged either by vomiting or stool. Even where such an event has occurred, there is reason to believe patients have recovered. In some cases the abscess by erosion of the diaphragm forms a communication with the cavity of the Thorax, giving rise to purulent expectoration. This should be considered a fatal accident. The patient under such circumstances seldom recovers, but gradually sinks under hectic fever and symptoms of hydrothorax.

Hydatids of considerable size are occasionally formed in the Liver, and when they accompany abscesses of this organ they greatly increase the danger of the disease.

Hepatitis sometimes, tho' very rarely, terminated



in gangrene. When there is a tendency to this termination, the symptoms are unusually violent, and continue to increase, without yielding in the slightest degree to our remedies. But when it has actually taken place, the inflammatory symptoms suddenly subside, cold sweats supervene, while the pulse becomes weak and fluttering, attended with hiccup and cold extremities.

Scirrhus has been enumerated among the terminations of this disease, but it is, I believe, generally regarded rather as a consequence of the chronic, than the acute variety of Hepatitis. Cause—This disease is more prevalent in warm, than in cold climates and persons of a Choleric and Melancholic temperament, are said to be particularly predisposed to its attacks.

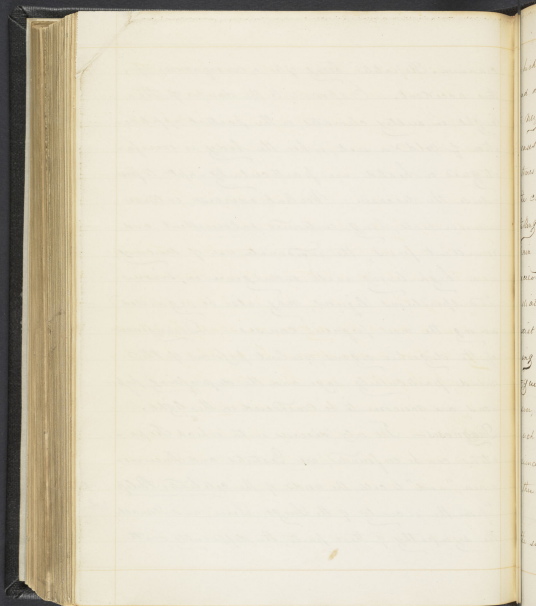
Among the causes may be enumerated external violence from contusions or falls, and especially those which have occasioned a fracture of the

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cranium. Hepatitis being often a consequence of, this accident. Exposure to the damps of the night in sultry climates, or the partial application of cold & a wet, when the body is over-fatigued or heated are particularly apt to produce the disease. Violent exercise, intense summer heats, long continued intermittent, and remittent fevers, the immoderate use of mercury, and high living with indulgence in vinous and spirituous liquors, may also be regarded among the most frequent causes. Disarrangement of the digestive organs, violent passions of the mind, particularly rage and the depressing passions, are moreover to be considered in this light.

Diagnosis—The only diseases with which Hepatitis can be confounded are Gastritis and Pneumonia, "and" to cite the words of the celebrated Philp. +
"from the vicinity of the Lungs, Liver, and Stomach, ^{who} the sympathy of these parts, the difficulty with



which the precise seat of internal pains is ascertained, and above all, the tendency of inflammation to spread to neighbouring parts; the symptoms of these diseases, and even the diseases themselves, are sometimes so combined that it is impossible to say where the chief seat of inflammation lies." If upon tasting any thing into the stomach, the heat and pain be not increased, if the liquors or medicines received into it, be retained without their immediate rejection, and if the prostration of strength exist in a much less degree, we shall by attending to these circumstances be enabled to distinguish Hepatitis from Gastritis. Frequently however, in consequence of the great irritability of the stomach at the commencement of Hepatitis, we experience considerable difficulty in ascertaining whether the one, or the other disease be present.

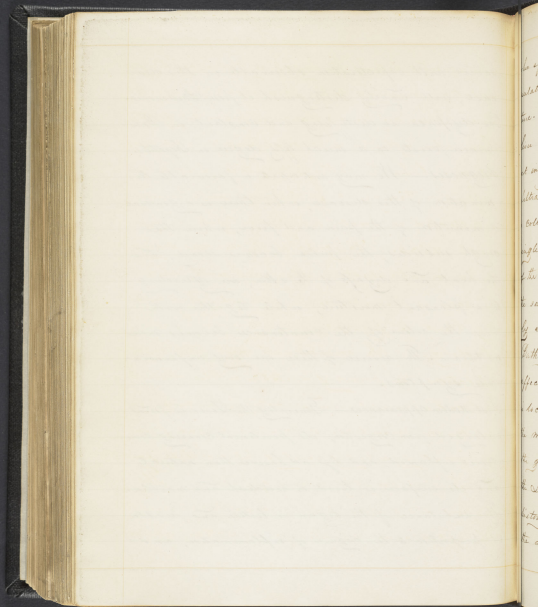
The pain extending to the shoulder, the sallow countenance, and the cough unaccom-

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panied with expectoration observable in this dis-
-ease, will readily distinguish it from Pneumonia.
The dyspnea so distressing and constant in Pneu-
-monia, exists in a much less degree in Hepatitis.
Prognosis— We may anticipate a favourable ter-
-mination of this disease, when there is a gradual
diminution of the pain and fever, when the
cough subsides, the pulse becomes slower, and
the heat and dryness of the skin, are yielding
to a pleasant moisture; while together with
these the colour of the countenance becomes more
natural. The reverse of these are very unfavour-
-able symptoms.

Post Mortem appearances— Generally, the Liver is found
enlarged from congestion; its peritoneal covering some-
-times inflamed, and less adhesive than natural,
and its surface is livid, or reddish and mottled.
The substance of the organ is brittle and friable,
in proportion to the degree of inflammation; and as



when squeezed between the fingers is granular; the granulations consisting of the parenchymatous structure. These are the appearances presented by the Liver when inflamed, and before suppuration has set in. When the latter takes place, pus is ex-filtrated throughout its cellular substance, or is collected in small abscesses or cysts, or in a single abscess. Phlegmosis of the mucous lining of the Hepatic duct is also met with, and the same is presented in the stomach, particularly about the pylorus.

Pathology — In common with most other hepatic affections, the primary irritation in this disease is located (except when produced by violence) in the mucous membrane of the stomach, and from the great sympathy existing between these parts, the Liver ultimately becomes affected. The history and causes of the disease, together with the appearances revealed on dissection, warrant

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such a conclusion.

Treatment— The mode of treatment in this disease does not differ materially from that which is pursued, in other violent cases of phlegmasia.

At the commencement of the attack when the inflammatory symptoms are very considerable, general bleeding should be adopted, proportioning the quantity taken away to the severity of the pain, and to the degree of fever that is present.

If a considerable abatement of the symptoms does not follow the operation, and the inflammatory action still continue, it should be repeated. If a free use of the lancet be neglected, suppuration must inevitably ensue, in consequence of the obstinate and rapid progress of the disease.

Bloodletting having been employed, purgatives become extremely beneficial; the best of which

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is Calomel, succeeded by some mild laxative, as Epsom,
Milk or Castor Oil. Active purgation is here of the ut-
-most importance, for although by R.S. and other
means, inflammation may be subdued, yet unless
the healthy secretions of the Liver be restored, the
cure cannot be accomplished. It is recommended
to exhibit the Calomel in minute doses until ten or
fifteen grains have been taken, and then to work it
off by some mild laxative.

Independently of the purgative effects of
this medicine, it emulges & unloads the Liver, and
restores its natural secretions.

Topical bleeding is not less important and should
not be overlooked. Cups or leeches, or both should
be liberally applied to the region of the Liver, suc-
-ceeded (provided the febrile action is suffi-
-ciently reduced) by the application of a large
 blister, or what is preferred by some, a suc-
-cupia of blisters, over the right hypochondriac region.

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Dr. Good does not speak in very favorable terms of the efficacy of blisters in this disease, but says he has derived more advantage from preparations and the warm bath. Diaphoretics (of which some of the antimonial preparations are to be preferred) may be employed with great advantage; and particularly when a moisture appears on the skin.

If the disease should not give way after having strictly pursued the antiphlogistic course for four or five days, we should resort to the use of mercury. Some practitioners have resorted to it, on the very onset, but in general it is not used with a view to its constitutional effects, until the inflammatory symptoms have been somewhat subdued by the antiphlogistic plan. After the inflammation has been sufficiently reduced, a gentle mercurial ptyalism should be excited, and kept up for a considerable time.

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17.
No plan of treatment will always succeed, and suppuration sometimes ensues notwithstanding all our efforts. Being formed there will be either a remission of the pain, or the patient complains of a dull obtuse sensation in the part, together with throbbing pains. Whenever the abscess points, it should be matured by poultices and opened.

The abscess having discharged itself, there is usually much debility; here the system must be soothed, by the occasional use of Opium, and by Tonics, among which the Nitric and Nitromuriatic acids will often prove extremely serviceable.

